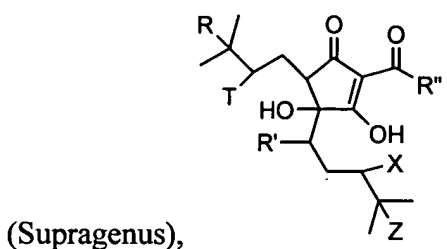


What is claimed is:

1. A composition comprising a fraction isolated or derived from hops and a methylxanthine.
2. The composition of claim 1, wherein the fraction isolated or derived from hops is selected from the group consisting of alpha acids, isoalpha acids, reduced isoalpha acids, tetra-hydroisoalpha acids, hexa-hydroisoalpha acids, beta acids, and spent hops.
3. The composition of claim 1, wherein the fraction isolated or derived from hops comprises a compound of a supragenus having the formula:

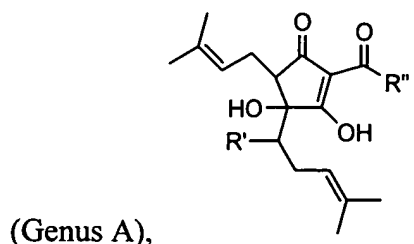


wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR,  
wherein R is alkyl;

wherein R'' is selected from the group consisting of CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, and  
CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>;

and wherein R, T, X, and Z are independently selected from the group consisting of H, F, Cl, Br, I, and  $\pi$  orbital, with the proviso that if one of R, T, X, or Z is a  $\pi$  orbital, then the adjacent R, T, X, or Z is also a  $\pi$  orbital, thereby forming a double bond.

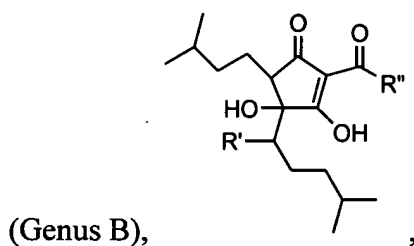
4. The composition of claim 1, wherein said fraction isolated or derived from hops comprises a compound of Genus A having the formula:



wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR,  
 wherein R is alkyl;

and wherein R'' is selected from the group consisting of CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, and  
 CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>.

5. The composition of claim 1, wherein the fraction isolated or derived from hops comprises  
 a compound of Genus B having the formula:



wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR,  
 wherein R is alkyl;

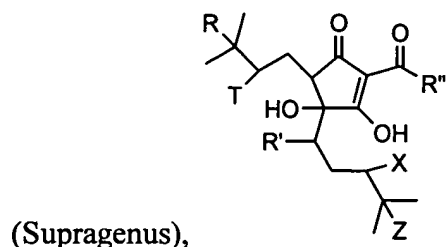
and wherein R'' is selected from the group consisting of CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, and  
 CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>.

6. The composition of claim 1, wherein said fraction isolated or derived from hops  
 comprises a compound selected from the group consisting of humulone, cohumulone,  
 adhumulone, isohumulone, isocohumulone, isoadhumulone, dihydro-isohumulone, dihydro-  
 isocohumulone, dihydro-adhumulone, tetrahydro-isohumulone, tetrahydro-isocohumulone,  
 tetrahydro-adhumulone, hexahydro-isohumulone, hexahydro-isocohumulone, and hexahydro-  
 adhumulone.

7. The composition of claim 1, wherein said methylxanthine is selected from caffeine; theobromine; theophylline; aminophylline; doxofylline; pentoxifylline; 8-oxopentoxifylline; 8-oxolisofylline; lisofylline; 1-proparagyl 3,7-dimethyl xanthine; 7-proparagyl 1,3-dimethyl xanthine; 3-proparagyl 1,7-dimethyl xanthine; 1,3,7-triproparagyl xanthine; 3-isobutyl-1-methylxanthine (IBMX); 1,3,7-tripropyl xanthine; 7-benzyl-IBMX; 1-propyl 3,7-dimethyl xanthine; 1,3-dipropyl 7-methyl xanthine; 1,3-dipropyl 7-proparagyl xanthine; 3,7-dimethyl 1-propyl xanthine; and 7-allyl 1,3-dimethyl xanthine.
8. The composition of claim 1, wherein the fraction isolated or derived from hops and methylxanthine are in a ratio of about 100:1 to about 1:100.
9. The composition of claim 8, wherein the fraction isolated or derived from hops is reduced isoalpha acid and the methylxanthine is caffeine.
10. The composition of claim 1, wherein the composition comprises about 0.5 to 10000 mg of said fraction isolated or derived from hops.
11. The composition of claim 10, wherein the composition comprises about 50 to 7500 mg of the fraction isolated or derived from hops.
12. The composition of claim 1, wherein the composition comprises about 0.001 to 10 weight percent of the fraction isolated or derived from hops.
13. The composition of claim 12, wherein the composition comprises about 0.1 to 1 weight percent of the fraction isolated or derived from hops.
14. The composition of claim 1, wherein the composition further comprises a pharmaceutically acceptable carrier.
15. The composition of claim 1, wherein the composition is formulated for administration orally, topically, parenterally, or rectally.
16. A composition comprising a fraction derived from hops and a curcuminoid.
17. The composition of claim 16, wherein the fraction derived from hops is selected from

isoalpha acids, reduced isoalpha acids, tetra-hydroisoalpha acids, hexa-hydroisoalpha acids, and beta acids.

18. The composition of claim 16, wherein the fraction derived from hops comprises a compound of a supragenus having the formula:

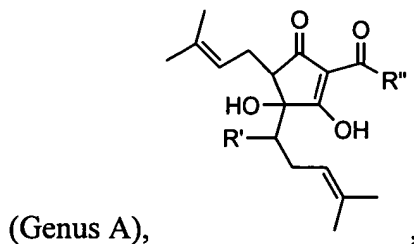


wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

wherein R'' is selected from the group consisting of CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, and CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>;

and wherein R, T, X, and Z are independently selected from the group consisting of H, F, Cl, Br, I, and  $\pi$  orbital, with the proviso that if one of R, T, X, or Z is a  $\pi$  orbital, then the adjacent R, T, X, or Z is also a  $\pi$  orbital, thereby forming a double bond.

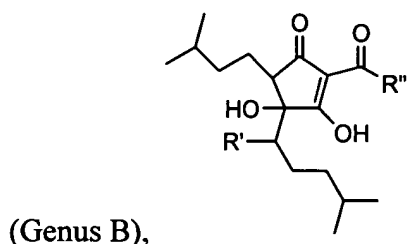
19. The composition of claim 16, wherein said fraction derived from hops comprises a compound of Genus A having the formula:



wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

and wherein R'' is selected from the group consisting of CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, and CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>.

20. The composition of claim 16, wherein the fraction derived from hops comprises a compound of Genus B having the formula:



wherein R' is selected from the group consisting of carbonyl, hydroxyl, OR, and OCOR, wherein R is alkyl;

and wherein R'' is selected from the group consisting of CH(CH<sub>3</sub>)<sub>2</sub>, CH<sub>2</sub>CH(CH<sub>3</sub>)<sub>2</sub>, and CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>3</sub>.

21. The composition of claim 16, wherein said fraction derived from hops comprises a compound selected from the group consisting of isohumulone, isocohumulone, isoadhumulone, dihydro-isohumulone, dihydro-isocohumulone, dihydro-adhumulone, tetrahydro-isohumulone, tetrahydro-isocohumulone, tetrahydro-adhumulone, hexahydro-isohumulone, hexahydro-isocohumulone, and hexahydro-adhumulone.

22. The composition of claim 16, wherein said curcuminoid is selected from curcumin, demethoxycurcumin, bisdemethoxycurcumin, cis-trans-curcumin and cyclocurcumin.

23. The composition of claim 16, wherein the fraction derived from hops and the curcuminoid are in a ratio of about 100:1 to about 1:10.

24. The composition of claim 23, wherein the ratio is about 3:2.

25. The composition of claim 24, wherein the fraction isolated from hops is reduced isoalpha acid and the curcuminoid is curcumin.

26. The composition of claim 16, wherein the composition comprises about 0.5 to 10000 mg of said fraction isolated or derived from hops.
27. The composition of claim 26, wherein the composition comprises about 50 to 7500 mg of the fraction isolated or derived from hops.
28. The composition of claim 16, wherein the composition comprises about 0.001 to 10 weight percent of the fraction isolated or derived from hops.
29. The composition of claim 28, wherein the composition comprises about 0.1 to 1 weight percent of the fraction isolated or derived from hops.
30. The composition of claim 16, wherein the composition further comprises a pharmaceutically acceptable carrier.
31. The composition of claim 16, wherein the composition is formulated for administration orally, topically, parenterally, or rectally.
32. A method of reducing inflammation, comprising administering a composition of any of claims 1-31.